

ment upon the report of the Committee that had been specially appointed for the work regarding the demarcation of the catchment basins of the Fife and Bhatghar Lakes with the head-water systems of the Nira and Mutha Canals, to afford protection against the deposition of silt in the beds of the lakes and canals, with the consequent deterioration and possibly the ultimate destruction of these very costly and highly valuable projects, not only in the interests of agriculture, but also upon sanitary grounds, for the Fife Lake and Mutha Canal supply drinking water to the city of Poona and to the cantonments and civil stations of Poona and Kirkee. Mention is made, in paragraphs 31 to 33 of the administration report of last year, of the proceedings of the Committee of which Mr. Joshua King of the Civil Service, Collector and Political Agent of Sátára, was President, and two Executive Engineers of the Irrigation Department, Messrs. Burke, C.E., and Clifton, C. E., with the Conservator of Forests were members. The Commissioner, C. D., condemned the scheme as being, in his opinion, too sweeping, and impolitic; and Government in their Resolution No. 246 of the 12th January 1887 appointed Mr. Báláji Gangádhár Sathé, Deputy Collector, on special duty to report to Government what scheme of forest demarcation and settlement can be carried out, and at what cost. The conditions to prevent-silt accruing being taken into account, but should not be the only object, the interests of the rayats and the rights of the Pant of Bhór being considered also—kumri cultivation being put a stop to where possible. Mr. Sathé had submitted no report before the close of the year.

## 2.—FOREST BOUNDARIES.

• • 31. The work of "Demarcation" as technically used in the Forest Department Code, meaning the defining of the boundaries of forest reservations upon the ground, has been pushed forward with vigour in several districts, for it is of great importance that forest boundaries and forest boundary-marks should be recognized and recognizable as such when and where they may be seen. Instructions regarding the construction and location of special forest boundary-marks have been issued to all Divisional Forest Officers during the year, and the construction of the special marks has been regulated by the specification of them given. These instructions provide—

### SPECIFICATION OF FOREST BOUNDARY-MARKS.

I.—In hilly country and also in the plains, where stones are to be found in considerable quantity, there shall be two classes of forest boundary-marks of the following specification:—

*Shape.*—A truncated cone.

*Description.*—Built of loose stones upon an excavated foundation, so that the lowest tier of stones shall be held in position and not pushed out by the weight of the superstructure, especially when the ground becomes wet and slippery. The interstices between the large stones composing the cairn are to be filled in with small stones, and the outer stones are to be wedged with stone chips. A shaped stone showing a height of at least 15 inches is to be fixed firmly on the top of the cairn in the centre.

*Foundation.*—Six (6) inches to be dug out.

*Dimensions.*—*First class mark* to have a base of 7 feet diameter, to be 5 feet high, and the top to be 4 feet diameter.

*Second class mark* to be on a base of 4 feet diameter, to be 3½ feet high, and to be 2½ feet in diameter on top.

• *Indicator.*—A cut stone showing at least 15 inches clear of the cairn to be embedded firmly in the centre on top; the stone to be large enough; a serial number to be cut on it if required.

• *Colour-wash.*—The stone to be colour-washed red annually, and lines of the same colour are to appear on the top of the cairn radiating from the centre stone, to show the direction of the boundary lines.

• *N.B.*—Bámbus, or Euphorbia verrifolia, (Sabri), to be planted in clumps round each boundary-mark.

• *Position.*—A 1st class boundary-mark to occupy main points and angles, such as where the boundary of a forest block, forest compartment, or village may intersect the forest boundary, and where the latter may take an abrupt turn.

A 2nd class boundary-mark to occupy intermediate points.

*N.B.*—(1).—The boundary-marks are to be placed at visible distances one from the other, so that from any mark its neighbouring one on both sides can be seen clearly.

- (2).—Where loose stones are not plentiful, instead of smaller cairns to occupy intermediate stations, the 1st class marks can be connected by a row of stones, showing one foot above ground placed in a single line, one guntha chain or 22 yards apart which are to be coloured red.

*Approximate cost.*—A 1st class boundary-mark can be constructed at an expenditure of from 7 to 9 annas and a 2nd class boundary-mark at a cost of from 2½ to 4 annas.

II.—In the plains, where loose stones are not plentiful, the forest boundary-mark may consist of a truncated cone made of earth well rammed, or of sun-dried bricks, or it may consist of the ordinary revenue survey bándh or boundary-mark with a stone struck on the top, which will be coloured red, and the bándhs upon the forest boundary will be connected by stones showing 1 foot above ground, to be colour-washed red.

It is desirable that the reserves on the plains shall be fenced, and the fences will be supplemental to the boundary-marks for defining and protecting the forest boundaries. Living fences may be made of *Euphorbia verrifolia* (Sabri) and *E. tirucally* (Sher), *Opuntia dillenii* (Nagphani niwadung), *Inga dulcis* (Vilayati chinch or Deckni bábul), *Lawsonia alba* (Mendhi) *Cassalpinia sepiaria* (Chilhar or Mysore thorn), &c.

#### RULES FOR THE INSPECTION AND MAINTENANCE OF FOREST BOUNDARY-MARKS.

I.—The forest guard of the beat will be responsible for the maintenance and protection of all the boundary-marks in the forests of his beat, he will colour-wash them annually after the Diváli holidays, and will make a special report of having performed this work; he will repair with his own hands any marks that may become disarranged, and he will plant bámbus or other vegetation, as directed, round or close to each mark, and also upon the forest boundary line to form a living hedge.

Each forest boundary-mark in his "beat" is to be specially inspected by the beat guard, at least once in every three months, and a record of his inspection of marks is to be entered in his diary when it may occur.

II.—The round guard will be responsible for the maintenance and protection of the boundary marks in the forests of his round; he will see that they are maintained in proper repair, are colour-washed, as directed, by the beat guard, and that the required measure of planting upon the forest boundaries or at or near the boundary-marks is undertaken and performed by the beat guard.

The round guard will specially inspect every forest boundary-mark in the forests of his round once in every year, and will make a record of every inspection made in his diary when it may occur, and also will submit a special report to the Divisional Forest Officer upon the state and condition of the boundary-marks, forest boundaries, living hedge, &c., as soon as he may have completed the inspection of the boundaries of any forest village or forest block.

III.—The Range Forest Officer will, during the official year, inspect and specially report upon the state and condition of the forest boundaries and forest boundary-marks of not less than two miles of forest boundary in every "beat" in his range. A record of inspections made will be entered in his diary when they may occur.

32. The progress made and cost incurred upon demarcation of boundaries during 1886-87 in the different Divisions appears in the following statement:—

| No. | Divisions.        | Length of<br>Boundaries. | NUMBER OF CAIRNS ERECTED. |        |        | Cost.      |
|-----|-------------------|--------------------------|---------------------------|--------|--------|------------|
|     |                   |                          | Large.                    | Small. | Total. |            |
|     |                   | Miles.                   |                           |        |        | Rs. a. p.  |
| 1   | North Thána ...   | 50                       | 700                       | 1,622  | 2,322  | 1,266 5 6  |
| 2   | South Thána ...   | "                        | 281                       | 1,193  | 1,474  | 697 13 0   |
| 3   | East Khándesh ... | "                        | 198                       | 669    | 867    | 332 9 0    |
| 4   | West Khándesh ... | "                        | ...                       | 604    | 604    | 151 9 3    |
| 5   | Násik ...         | "                        | 910                       | ...    | *910   | 44 4 0     |
| 6   | Ahmednagar ...    | "                        | 600                       | 1,247  | 1,847  | 886 14 0   |
| 7   | Poona ...         | "                        | 3,031                     | 3,984  | 7,015  | 2,314 4 9  |
| 8   | Sátára ...        | "                        | 159                       | 2,128  | 2,287  | 491 7 2    |
| 9   | Sholápur ...      | "                        | 140                       | 187    | 327    | 249 6 4    |
| 10  | Surat ...         | "                        | ...                       | 77     | 77     | 107 8 0    |
| 11  | Panch Máhals ...  | "                        | 73                        | 580    | 653    | 171 9 0    |
|     | Total ...         |                          | 6,092                     | 12,291 | 18,383 | 6,713 10 0 |

\* 556 in Peint were erected without cost.